

# XPA 1002 Audio Power Amplifier

The Extron XPA 1002 is a half-rack width, two-channel, stereo audio power amplifier that outputs 60 watts per channel (8-ohm speakers) or 100 watts per channel (4-ohm speakers). The XPA 1002 utilizes Extron's patented CDRS™ Class D Ripple Suppression technology to reduce EMI. The audio level adjustment feature prevents the occurrence of audio clipping.

## Over Temp indicator LED

**OVER TEMP**

This front panel LED lights red when the amplifier exceeds the recommended ambient temperature for optimal lifetime. The LED turns off after the amplifier cools down sufficiently. See the User's Manual.

## Limiter/Protect indicator LEDs

**LIMITER/ PROTECT** — 1 2

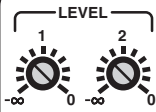
These front and rear panel LEDs (representing output channels 1 and 2) light red under three circumstances:

- When audio clipping occurs, the corresponding channel's LED blinks once per clip occurrence.
- When the amplifier overheats, both LEDs are lit. The LEDs are not lit after the amplifier cools down and recovers from the overheated condition.
- When DC output is detected, the amplifier is malfunctioning and the LED for the corresponding channel is lit. Power down the amplifier and power it back up. If the LED still remains lit after a power cycle, the amplifier requires servicing.

## Signal indicator LEDs

**SIGNAL** — 1 2 These front and rear panel LEDs (representing input channels 1 and 2) light green only when an input signal is detected on the corresponding channel.

## Level adjustment



**Level adjustment (channels 1 and 2)** — Use a Tweezer or small screwdriver to adjust the audio input level for the corresponding channel. The analog potentiometers control the level from -∞ (full attenuation) to 0 dB.

To adjust the XPA amplifier's input level, do the following:

1. Make sure that the source signal is active.
2. Before powering up the amplifier, adjust the output level(s) to the lowest setting (fully counterclockwise).
3. Power up the amplifier.
4. Adjust level(s) by turning the adjustment clockwise until audio distortion begins to occur, then back off the adjustment (turning counterclockwise) until the distortion disappears.

## Automatic standby mode

The XPA goes into standby mode after approximately one hour of inactivity. The XPA comes out of standby mode approximately one second after detecting an input signal (unless in manual standby — see "Remote control connector").



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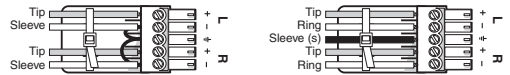
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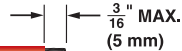
33-1470-01 Rev. A  
09 08

## Audio input wiring



**Unbalanced Stereo Input**

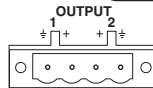
**Balanced Stereo Input**



Do not tin the wires!

**CAUTION** Connect the sleeve to ground (Gnd). Connecting the sleeve to a negative (-) terminal will damage the audio output circuits.

## Audio output wiring



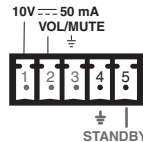
**CLASS 2 WIRING**

**Stereo audio output connector (channels 1 and 2)** — Marked "1" and "2" for the output channels, wire the included 4-pole, 5.08 mm screw lock captive screw connector to output stereo audio through either channel. Observe the correct polarities for each channel. Speaker output is rated at 100 watts per channel (4-ohm speakers) or 60 watts per channel (8-ohm speakers).

**NOTE** You must use Class 2 wiring for this output to comply with UL requirements.

**WARNING** Do not tie channel outputs 1 and 2 to each other or to ground. Doing so will short out the outputs and/or damage the amplifier.

## Remote control connector

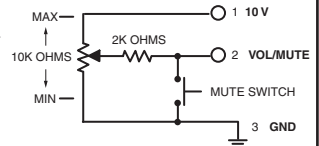


STANDBY

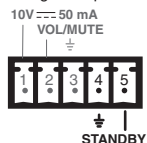
**Remote control connector** — The 3.5 mm 5-pin captive screw receptacle is used to remotely control two functions through contact closure:

1. As shown on the left, pins 1, 2, and 3 control volume by varying the DC voltage from 0 V (full attenuation) to 10 V (maximum volume) with full muting in effect when pin 2 is connected to ground (pin 3). See the circuit diagram below.

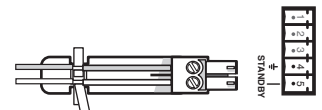
**NOTE** Maximum volume output is dependent on input level adjustment.



2. As shown below, pin 5 connected to ground (pin 4) places the amplifier in standby mode. Standby mode turns off all output(s), although the amplifier is still receiving power. Use the included 2-pin, 3.5 mm captive screw connector plug to remotely ground pin 5.



STANDBY



Remote Switching to Standby Mode